

### **REMARKS**

Applicant respectfully requests reconsideration and allowance of the subject application in view of the foregoing amendments and the following remarks.

Claims 1-9, 11-20, 22-24, 26, 28-31 and 33-49 are pending in the application, with claims 1, 20, 22, 29, 33, 38, 44 and 40 being independent claims. Claims 1, 3, 12, 20, 22-24, 26, 28, 33-36 and 38 are amended herein. Claims 10, 21, 25, 27 and 32 were previously cancelled. No new matter has been added.

### **CLAIM OBJECTIONS**

Claims 22-26, 28 and 34-36 were objected because of informalities. Claims 22-24, 26 and 28 have been amended herein to recite "One or more tangible computer readable media," as suggested in the Office Action. Claims 34-36 have been amended to depend from independent claim 33. Accordingly, Applicant requests withdrawal of the claim objections.

### **§101 REJECTIONS**

Claim 38 and its dependent claims stand rejected under 35 U.S.C. 101, as being directed to non-statutory subject matter. Claim 38 has been amended as suggested in the Office Action to overcome the Examiner's rejection. Claim 38 and its dependent claims are now believed to be in the condition of allowance.

## **§102 REJECTIONS**

Claims 1-9, 11, 13-15, 18-20, 22-24, 26, 29-31, 33-37 and 45-48 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent Number 6,457,028 to James E. Pitkow et al ("Pitkow"). Applicant respectfully traverses the rejection.

**Independent claim 1**, as presently amended, recites:

A computerized method comprising:  
identifying, from a plurality of objects, a set of core objects for a data structure corresponding to a community of objects by identifying one or more objects that are referenced by at least a threshold number of other objects of the plurality of objects;  
expanding, based on the set of core objects, the community of objects to include a set of affiliated objects, wherein the set of core objects and the set of affiliated objects are maintained as distinct entities within the data structure;  
accessing at least one element of the data structure with a processor of a computer;  
assigning the set of core objects to a center portion of a user interface independent model;  
assigning each affiliated object in the set of affiliated objects to a particular concentric portion around the center of the model; and  
merging together a first community of the plurality of communities and a second community of the plurality of communities in response to a finding of similarity between the core objects in the first community and the core objects in the second community.

Pitkow is directed to a method for identifying collections of linked documents, in which the links from a set of related documents are analyzed to identify document collections (Pitkow, Col. 3 lines 1-4).

However, Pitkow fails to disclose or suggest all the elements of independent claim 1. Pitkow describes a method for detailing the explicit linkages of citations between papers in which the number of times a document was cited is computed and those documents whose cited frequency falls above a specific threshold are kept for further processing and the remaining ones are discarded (Col. 5 lines 50-63). The subject matter of claim 1, on the other hand, recites “identifying, from a plurality of objects, a set of core objects for a data structure corresponding to a community of objects by identifying one or more objects that are referenced by at least a threshold number of other objects of the plurality of objects” and “expanding, based on the set of core objects, the community of objects to include a set of affiliated objects, wherein the set of core objects and the set of affiliated objects are maintained as distinct entities within the data structure.” Thus, Claim 1 describes identifying core objects based on the threshold and expanding the community based on these core objects to include a set of affiliated objects whereas Pitkow describes discarding from consideration or pre-filtering the documents whose citing frequency is less than a specific threshold and further describes co-citation analysis which measures the number of documents that have cited a given pair of documents together (Col. 5 lines 40-42). Further, Pitkow describes that co-citation analysis creates a set of clusters whose

elements are indirectly or directly related by co-citation (Col. 5 lines 64-66). This is accomplished by clustering all documents that have at least one document of the co-citation pair in common with the other elements in the cluster (Col. 5 line 67 – Col. 6 line 1). This process goes on until there are no pairs that have a document in common with the elements in the cluster (Col. 6 lines 5-10). At this point, a new pair is selected from the remaining pairs to form a new cluster and the process is repeated until all pairs belong to a cluster (Col. 5 line 64- Col. 6 line 10). Thus, Pitkow describes forming clusters based on co-citations and when there are no more co-citations left for a particular cluster, starting another cluster by selecting another pair. It does not describe expanding based on a set of core objects, the community of objects to include a set of affiliated objects. Rather, Pitkow implies choosing another set of core objects and starting a new cluster altogether.

Further, Pitkow also does not disclose “assigning the set of core objects to a center portion of a user interface independent model” and “assigning each affiliated object in the set of affiliated objects to a particular concentric portion around the center of the model.” Pitkow describes various means for ranking such as site usage and further describes that a subset of the sites are identified by the ranking (Col. 10 lines 32-47) but does not disclose that a set of core objects is assigned to a center portion around the center of a user interface independent model and also does not disclose that ranks are assigned to affiliated objects based on which of the affiliated objects are assigned to a particular concentric portion around the center of the model.

Pitkow also does not show or disclose “merging together a first community of the plurality of communities and a second community of the plurality of communities in response to a finding of similarity between the core objects in the first community and the core objects in the second community.” In the portions cited by the Office, Pitkow merely describes different aspects of the process of creating clusters using co-citation analysis. But nowhere does Pitkow disclose finding a similarity between the core objects in the first community and the core objects in the second community and, if a similarity is found, merging the first community and the second community as recited in claim 1.

Accordingly, independent claim 1 is not anticipated by Pitkow.

**Dependent claims 2-9, 11-19 and 45-48** depend from independent claim 1 and are, therefore, allowable by virtue of this dependency as well as for additional features that each recites. For example, **dependent claim 3** recites “the merging results in a merged community including all of the objects of the first community and the second community and having a set of core objects that includes the core objects in the first community and the core objects in the second community.” As mentioned in reference to Claim 1, Pitkow fails to disclose merging the first community and the second community if sufficient similarity exists between the core objects of first community and the core objects of second community. Thus, Pitkow also fails to disclose that “the merging results in a merged community including all of the objects of the first community and the second community and

having a set of core objects that includes the core objects in the first community and the core objects in the second community.” as recited in claim 3.

As another example, Pitkow also fails to disclose “identifying, as a core set, one or more of the groups of objects that satisfy the link threshold” as recited in claim 9. As mentioned above in reference to independent claim 1, Pitkow uses a threshold to discard documents that are not relevant to co-citation analysis (Col. 5 lines 57-63). Pitkow does not disclose identifying as a core set, a group of objects that satisfy a link threshold.

Further, Pitkow does not show or disclose “the threshold number is a function of, at least, the numeric value corresponding to the weight associated with at least one reference” as described in Claim 45. Pitkow describes various means for ranking such as site usage and further describes that a subset of the sites are identified by the ranking (Col. 10 lines 32-47). However, Pitkow does not disclose that threshold number is a function of numeric value corresponding to weight associated with the reference. The threshold as described by Pitkow (Col. 7, lines 64-65) is not a function of numeric value associated with the reference. Rather, it is some specified minimum frequency of linkages. Hence, Pitkow fails to anticipate claim 45.

Similarly, Pitkow also does not disclose “the threshold number is a function of, at least, the numeric value corresponding to the weight associated with at least one reference” as described in Claim 46 or that “each object in the community is

ranked as a function of, at least, the numeric value corresponding to the weight associated with at least one reference to the object” as described in Claim 47.

Finally, Pitkow also does not disclose “measuring a degree of affiliation between two objects of the community based on, at least, the weight associated with at least one reference in a reference chain between the two objects” as described in claim 48.

Thus, as shown by way of example with respect to the claims discussed above, claims 2-9, 11-19 and 45-48 are allowable as not anticipated by Pitkow.

**Independent claim 20**, as amended, recites:

One or more tangible computer readable media having stored thereon a plurality of instructions that, when executed by one or more processors of a device, causes the one or more processors to:

identify, from a plurality of objects, a first collection of objects to be a core of a community;

identify, from the plurality of objects, a second collection of objects that are linked to the first collection of objects wherein the second collection of objects are affiliate objects;

assign the first collection of objects to a center portion of a user interface independent model;

assign each object of the second collection of objects to a particular concentric portion around the center of the model; and

add to the community, the second collection of objects, wherein the first collection of objects and the second collection of objects are maintained as distinct entities within the data structure.

As discussed above with respect to independent claim 1, Pitkow describes a method for detailing the explicit linkages of citations between papers in which the number of times a document was cited is computed and those documents whose

cited frequency falls above a specific threshold are kept for further processing and the remaining ones are discarded (Col. 5 lines 50-63). Pitkow fails to teach one or more tangible computer readable media that causes one or more processors to “assign [a] first collection of objects to a center portion of a user interface independent model; assign each object of [a] second collection of objects to a particular concentric portion around the center of the model” as presently recited in claim 20. Rather, Pitkow merely describes various means for ranking such as site usage and further describes that a subset of the sites are identified by the ranking (Col. 10 lines 32-47). Pitkow does not describe that the second collection of objects is assigned to a particular concentric portion around the center of the model. Accordingly, independent claim 20 is not anticipated by Pitkow.

**Dependent claim 22**, depends from base claim 1 and is thus allowable by the virtue of its dependence over the allowable base claim. Further, claim 22 is also allowable because Pitkow fails to teach all the elements of claim 22. For example, Pitkow does not teach one or more tangible computer readable media that causes one or more processors to “identify, from the plurality of objects, additional second collections of objects that are linked to the first collections of objects to be affiliated objects of the additional communities.” Pitkow merely teaches a process of pre-filtering whereby the documents failing to meet a specific threshold are discarded from consideration for co-citation analysis. (Pitkow, Col. 5, lines 55-60) Pitkow makes no mention of identifying, from the plurality of



objects, additional second collections of objects that are linked to the first collections of objects to be affiliated objects of the additional communities. Accordingly, independent claim 22 is not anticipated by Pitkow.

**Dependent claims 23-26** depend from independent claim 20. Each of these dependent claims is allowable by virtue of its dependency on claim 20, as well as for additional features that each claim recites. For example, as mentioned above, Pitkow teaches different aspects of the process of creating clusters using co-citation analysis. However, Pitkow fails to disclose or suggest that “the merge results in a merged community including all of the objects of the first of the communities and the second of the communities and having a set of core objects that includes the core objects in the first of the communities and the core objects in the second of the communities” as recited in claim 23. Pitkow also fails to disclose one or more tangible computer readable media that causes one or more processors to “merge together a first of the communities and a second of the communities if there is sufficient similarity between the core and affiliated objects in the first of the communities and the core and affiliated objects in the second of the communities” as recited in claim 24. Thus, as shown by way of example with respect to the claims discussed above, claims 23-26 are not anticipated by Pitkow.

**Independent claim 29, recites:**

A system to mine communities from a plurality of objects, the system comprising:

a processor; and

a memory coupled to the processor, wherein the memory includes one or more instructions that cause the processor to, at least:

identify, from the plurality of objects, one or more core object sets from the plurality of objects by identifying one or more objects that are referenced by at least a threshold number of other objects of the plurality of objects, wherein each core object set is incorporated into a respective data structure defining a community; and

for each of the core object sets, expand the respective data structure defining the community to include a set of affiliated objects, wherein the expansion is based on the core object set of the community, and the core object set and the associated set of affiliated objects are maintained as distinct entities within each respective data structure.

As set forth above with respect to independent claim 1 and its dependent claims, Pitkow fails to teach one or more instructions that cause the processor to “identify, from the plurality of objects, one or more core object sets from the plurality of objects by identifying one or more objects that are referenced by at least a threshold number of other objects of the plurality of objects” and “expand the respective data structure defining the community to include a set of affiliated objects, wherein the expansion is based on the core object set of the community” as presently recited in claim 29.

Accordingly, independent claim 29 is not anticipated by Pitkow.

**Dependent claims 30-31** depend from independent claim 29. Each of these dependent claims is allowable by virtue of its dependency on claim 29, as well as for additional features that each claim recites. For example, Pitkow fails to disclose one or more instructions that cause the processor to “repeat the identification and expansion for a plurality of communities of objects, wherein the objects in each community of objects are all from the plurality of objects” as claimed in claim 30. Pitkow merely describes a method of co-citation analysis in which pre-filtering is performed to filter out and discard the documents whose citing frequency falls below a threshold. (e.g., Col. 5 lines 40-42) However, Pitkow fails to disclose or suggest repeating the identification and expansion of plurality of objects as recited in claim 30. Similarly, Pitkow fails to disclose one or more instructions that cause the processor to “find groups of objects of the plurality of objects that satisfy a link threshold; and identify, as a core object set, one or more of the groups of objects that satisfy the link threshold.” as recited in claim 31. Accordingly, claims 30 and 31 are allowable as not anticipated by Pitkow.

**Independent claim 33**, as currently amended recites:

A system implemented at least in part in a computing device,  
the system comprising:

a processor;

a core set identification module to identify core sets of objects  
for data structures corresponding to communities from a plurality of  
objects by identifying one or more objects that are referenced by at  
least a threshold number of other objects of the plurality of objects;

and

a community expansion module to expand the data structures corresponding to the communities by adding sets of affiliated objects to data structures corresponding to the communities, wherein the expansion is based at least in part on at least one core set of objects, and each core set of objects and each set of affiliated objects is maintained as a distinct entity within respective data structures corresponding to communities; and

a core set merging module to merge together a first of the communities and a second of the communities in response to a finding of sufficient similarity between the core objects in the first of the communities and the core objects in the second of the communities.

As set forth above in reference to independent claim 1 and its dependent claims, Pitkow fails to teach “a core set merging module to merge together a first of the communities and a second of the communities if there is sufficient similarity between the core objects in the first of the communities and the core objects in the second of the communities” as presently recited in independent claim 33. Accordingly, claim 33 is not anticipated by Pitkow, and is allowable for at least the foregoing reasons.

**Dependent claims 34-37** depend from independent claim 33. Each of these dependent claims is allowable by virtue of its dependency on claim 33, as well as for additional features that each claim recites. For example, Pitkow fails to teach a core set identification module to “identify, as a core object set, one or more of the groups of objects that satisfy the link threshold; find groups of objects of the plurality of objects that satisfy a link threshold; and identify, as a core

object set, one or more of the groups of objects that satisfy the link threshold,” as claimed in claim 34. Pitkow also does not disclose a core set identification module to “identify links between objects of the plurality of objects; and for each community, identify one or more objects of the plurality of objects, wherein a link exists from each of the identified one or more objects to at least one of the objects of the core object set of the community, and include, in the set of affiliated objects of the community, each of the identified one or more objects”, as recited in claim 35.

Further, Pitkow also fails to disclose “the core set merging module generates a merged community that includes all of the objects of the first of the communities and the second of the communities and has a set of core objects that includes the core objects from the first of the communities and the core objects from the second of the communities” as recited in claim 36. Similarly, Pitkow also fails to disclose “a community merging module to merge together a first of the communities and a second of the communities if there is sufficient similarity between the core and affiliated objects of the first of the communities and the core and affiliated objects of the second of the communities” as currently recited in Claim 37. Accordingly, claims 34-37 are allowable as not anticipated by Pitkow.

### **§103 REJECTIONS**

**Claim 16 -17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pitkow in view of U.S. Publication Number 2006/0031246 to Loren P. Grayson ("Grayson").**

Applicant respectfully traverses the rejection.

**Dependent claims 16-17** depend from independent claim 1 and therefore include all of the features of the base claim.

As discussed above, Pitkow fails to disclose or suggest features of independent claim 1. Grayson was cited for its alleged teaching that “each of the plurality of objects being a person,” as recited in dependent claim 16 and for its alleged teaching that “identifying a plurality of links, wherein each link links one object to another object, and wherein each of the plurality of links represents a relationship of one person to another person” as recited in claim 17. However, Grayson fails to remedy the foregoing deficiencies in Pitkow noted above with respect to claim 1.

Grayson is directed to a reusable universal database model for modeling and storing data and all relationship in the form that supports any data representing either the physical or any virtual universe (Grayson, Para [0029]). More specifically, Grayson discusses developing a database of relationships and as an example may use genealogy, from which all types of personal relationships can be created (Grayson, Para [0358]). However, Grayson does not disclose the concept

of identifying from amongst a community objects, a set of core group and further expanding the core group by adding sets of affiliate groups. Grayson merely describes a method of developing a database based on relationships.

Further, Grayson fails to disclose or suggest “identifying a plurality of links, wherein each link links one object to another object, and wherein each of the plurality of links represents a relationship of one person to another person” as recited in claim 17. Therefore, Grayson fails to remedy the noted deficiencies in Pitkow in at least these respects.

Thus, Pitkow and Grayson, whether taken alone or in combination, assuming for the sake of argument that they can be combined, fail to disclose or suggest the features of dependent claims 16 and 17. Accordingly, dependent claims 16 and 17 are allowable.

**Claims 12, 28 and 38-43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pitkow in view of U.S. Publication Number 2002/0152222 to David M. Holbrook ("Holbrook").** Applicant respectfully traverses the rejection.

**Dependent claims 12 and 28** depend from independent claims 1 and 20, respectively, and therefore include all of the features of the respective base claims. In the Office Action at page 20, the Office admits that “Pitkow does not explicitly disclose assigning a collection of objects to a center portion of a user interface independent model and another collection of objects to a particular concentric

portion around the center in accordance with the rank of the object”. Holbrook fails to remedy the deficiency of disclosure in Pitkow.

Holbrook was cited in the Office Action on page 20 for allegedly teaching assigning a collection of objects to a center portion of a user interface independent model and another collection of objects to a particular concentric portion around the center in accordance with the rank of the object. Holbrook is directed to a “graphical user interface for the presentation and review of search results from any hierarchically organized database” (Holbrook, Para [0018]). Holbrook’s database search result presentation and navigation method and apparatus presents aggregate relevant data to the user and enables the user to efficiently evaluate and review the entire results (Holbrook, Para [0017]).

However, in contrast to the dependent claims, Holbrook does not teach or suggest, “a rank is assigned to each affiliated object in the set of objects, based on which each affiliated object is assigned to a particular concentric portion around the center of the model.” as claimed in the context of dependent claim 12 and “assign the first collection of objects to a center portion of a user interface independent model wherein the user interface independent model comprises a center portion and a plurality of concentric portions around the center portion of the model; rank each object of the second collection of objects; and assign each object of the second collection of objects to a particular concentric portion around the center of the model in accordance with the rank of the object” as recited in Claim 28. Holbrook merely shows a categorization of websites in which each



depicted web site is a member of the parent category within which it belongs. The web site icons for all of the selected number of matching web sites falling within each parent category are grouped together and have the same color. Thus, color and organization are used as indicating membership in a certain parent category (Holbrook, Para [0077]). Holbrook, like Pitkow, fails to show a user interface independent model having a center portion and a plurality of concentric portions around the center portion.

Therefore, Pitkow and Holbrook, whether taken alone or in combination (assuming for the sake of argument that they can be combined), fail to disclose or suggest the features of dependent claims 12 and 28. Accordingly, dependent claims 12 and 28 are allowable.

**Independent claim 38, recites**

A computerized method comprising:

grouping a first collection of a plurality of objects into a center portion;

grouping a second collection of the plurality of objects into a plurality of concentric portions around the center portion so that all objects of the second collection that are grouped in a particular one of the concentric portions have a same rank; and

instantiating, in at least one tangible computer readable media, a community of objects corresponding to a user interface independent model comprising the groupings of the first and second collections of the objects.

In the Office Action, page 22, Office admits that Pitkow fails to disclose “grouping the collection of objects into a center portion and into one or more concentric portions.” The Office therefore turns to Holbrook. However, Holbrook fails to remedy the deficiency of disclosure in Pitkow.

Holbrook was cited for allegedly teaching assigning a collection of objects to a center portion of a user interface independent model and another collection of objects to a particular concentric portion around the center in accordance with the rank of the object. However, as discussed above in reference to dependent claims 12 and 28, Holbrook merely teaches a categorization of websites in which each depicted web site is a member of the parent category within which it belongs. The web site icons for all of the selected number of matching web sites falling within each parent category are grouped together and have the same color. Thus, color and organization are used as indicating membership in a certain parent category. (Holbrook, Para [0077]) However, Holbrook fails to disclose “grouping a first collection of a plurality of objects into a center portion; grouping a second collection of the plurality of objects into a **plurality of concentric portions around the center portion so that all objects of the second collection that are grouped in a particular one of the concentric portions have a same rank.**” Holbrook does not identify concentric portions around the center portion and further also does not group all the objects having a same rank in a particular one of the concentric portions.

Therefore, Pitkow and Holbrook, whether taken alone or in combination (assuming for the sake of argument that they can be combined), fail to disclose or suggest the features of independent claim 38. Accordingly, independent claim 38 is allowable.

**Dependent claims 39-43** depend from independent claim 38 and therefore include all of the features of the base claim. As discussed above, Pitkow and Holbrook fail to disclose or suggest features of independent claim 38. Hence, by the virtue of their dependence over allowable base claim, dependent claims 39-43 are also considered allowable.

**Claim 44 is rejected under 35 U.S.C. 103(a) as being unpatentable over Pitkow in view of U.S. Patent Number 6,564,206 to Kazuyo Ikeda (“Ikeda”).** Applicant respectfully traverses the rejection.

**Independent Claim 44** recites:

One or more tangible computer readable media having stored thereon a plurality of instructions that, when executed by one or more processors of a device, causes the one or more processors to describe a community of objects by, at least:

- creating a set of concentric circles;
- assigning a group of core objects of the community to the center data circle of the set of concentric data circles; and
- assigning a group of affiliated objects of the community to a plurality of data circles of the set of concentric data circles, wherein all of the objects of the group of affiliated objects having a same rank are assigned to a same one of the set of concentric data circles, and wherein the set of concentric data circles facilitates traversal of the community of objects independent of a user interface.

Pitkow fails to disclose all the elements of independent claim 44. In the Office Action at page 23, the Office admits that Pitkow fails to disclose assigning a collection of objects to the center data circle and another collection of objects to a plurality of data circles of the set of concentric data circles wherein all of the

objects having a same rank are assigned to a same one of the set of concentric data circles. Ikeda fails to remedy the deficiency of disclosure in Pitkow.

Ikeda was cited in the Office Action on page 24 for allegedly teaching “assigning a collection of objects to the center data circle and another collection of objects to a plurality of data circles of the set of concentric data circles wherein all of the objects having a same rank are assigned to a same one of the set of concentric data circles”.

Ikeda is directed towards an information search method and apparatus, and a computer readable storage medium which stores a program for searching and displaying information (Ikeda, Col. 1, lines 6-9).

In the portion cited by the Office, Ikeda describes that while conducting a search, search results are displayed on a search result display region (Ikeda, Figure 6, col. 23 line 56 – col. 24 line 22). Ikeda describes a matched zone as a circular zone which is concentric with the search result display region, the respective scale marks are displayed as circles concentric with the matched zone, and images as search results are displayed to be laid out in a radial pattern from the center of the search result display region so that their similarity values correspond to the distances from the matched zone (Col. 23 line 65 – Col. 24 line 7). Thus, Ikeda describes displaying search results in concentric circles with the matched zone (Ikeda, Fig. 6). However, Ikeda fails to teach or suggest that “all of the objects having a same rank are assigned to a same one of the set of concentric data circles” as claimed in claim 44.

Therefore, Pitkow and Ikeda, whether taken alone or in combination (assuming for the sake of argument that they can be combined), fail to disclose or suggest the features of independent claim 44. Accordingly, independent claim 44 is allowable.

**Claim 49 is rejected under 35 U.S.C. 103(a) as being unpatentable over Pitkow in view of U.S. Patent Number 6,349,296 to Andrei Z. Broder et al. ("Broder").** Applicant respectfully traverses the rejection.

Dependent claim 49 depends from independent claim 29, and therefore includes all of the features of the respective base claim. Dependent claim 49 is therefore allowable by virtue of this dependency as well as for additional features that it recites.

Furthermore, in the Office Action at page 24, the Office admits that Pitkow does not explicitly disclose the notion of a ratio of a minimum size of one of the at least two core objects set to a size of an intersection of the at least two core object sets. Further on page 24, the Office cites Broder as allegedly teaching the notion of a ratio of a minimum size of one of the at least two core objects set to a size of an intersection of the at least two core object sets.

Broder describes methods for determining the resemblance of data objects such as Web pages indexed by a search engine connected to the World Wide Web (Broder, Col. 2 lines 30-34). In the portion cited by the Office (col. 4 lines 12 – 14 and 26 - 56) Broder describes methods to determine similarity of documents. A

method first decomposes each document into a canonical sequence of tokens. The tokens are then shingled. A shingle is a contiguous sequence of k tokens. All shingles have the same length, k. The extent to which the sets of shingles associated to two documents intersect determines their resemblance (Broder, Col. 4 lines 7-15). Thus, Broder merely describes a method to determine the similarity of documents but fails to disclose “a decision to merge the at least two core object sets is based on a set of conditions comprising a condition specifying that a ratio of a minimum size of one of the at least two core object sets to a size of an intersection of the at least two core object sets is less than 2.”

Accordingly, claim 49 is allowable over Pitkow and Broder whether taken alone or in combination (assuming for the sake of argument, that the documents can even be combined as suggested in the Office Action).

### CONCLUSION

For at least the foregoing reasons, claims 1 - 9, 11 - 20, 22 - 24, 26, 28 - 31 and 33 - 49 are in condition for allowance. Applicant respectfully requests reconsideration and withdrawal of the rejections and an early notice of allowance.

If any issue remains unresolved that would prevent allowance of this case, **Applicant requests that the Examiner contact the undersigned attorney to resolve the issue.**

Respectfully submitted,

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